



**CONTRIBUTION OF THE SEED SECTOR TO THE
CANADIAN ECONOMY**

**A Study Commissioned by
The Canadian Seed Trade Association**

About the Study

- Purpose: to quantify the contribution of the seed sector to the Canadian economy, with well researched, defensible facts that can be easily communicated to seed industry participants and their partners in the value chain; government and the public.
- A survey based study, conducted over the summer of 2008, for the 2007 year
- Surveys conducted in the following segments of the seed industry
 - Research and plant breeding (public and private)
 - Seed production
 - Processing and production support
 - Marketing and distribution
- For each segment, questions determined:
 - Total employment
 - Full time equivalents
 - Value of salaries and benefits
 - Annual operating costs for the purchase of goods and services
 - Annual investment in capital goods
 - Annual Sales outside of Canada

Results of the Survey Based Study

- In 2007, the Seed Sector Contributed \$3.95 billion to the Canadian Economy
 - Total Salaries and Benefits\$1.01 billion
 - Annual Operating Costs
(goods and services.....\$1.72 billion
 - Annual Capital Investment\$ 658.8 million
 - Sales outside Canada\$ 568.6 million
 - Total Contribution\$ 3.95 billion**

- In 2007, The Seed Sector Employed 14,228 Canadians
 - Plant breeding and research 3, 048
 - Seed production 2, 575
 - Processing and Production Support.... 6, 234
 - Marketing and Distribution..... 2, 371
 - Total Employment14, 228**

- In 2007, the Seed Sector brought to Canada almost \$569 million from international markets
 - Plant breeding and research \$ 32.2 million
 - Seed production \$ 146.6 million
 - Processing and Production Support.... \$ 8.8 million
 - Marketing and Distribution..... \$ 381.1 million
 - Total Return from International Sales ... \$ 568.7 million**

Results by Industry Segment

A. *Plant Breeding and Research*

Total employment..... 3 048

Total Annual Salaries and Benefits \$ 195 982 000

Total Annual Operating Costs
 Goods and Services Purchased \$ 100 702 000

Total Annual Investment in Capital Goods \$ 32 212 000

Annual International Sales \$ 32 175 000

Total Dollar Contribution 2007 \$ 361 071 000

B. *Seed Production*

Total employment..... 2 575

Total Annual Salaries and Benefits \$ 225 794 000

Total Annual Operating Costs
 Goods and Services Purchased \$ 463 549 000

Total Annual Investment in Capital Goods \$ 267 127 000

Annual International Sales \$ 146 628 000

Total Dollar Contribution 2007 \$ 1 103 098 000

C. Seed Processing and Production Support

Total employment.....	6 234
Total Annual Salaries and Benefits	\$ 365 783 000
Total Annual Operating Costs	
Goods and Services Purchased	\$ 865 054 000
Total Annual Investment in Capital Goods	\$ 272 107 000
Annual International Sales	\$ 8 754 000
Total Dollar Contribution 2007	\$ 1 511 698 000

D. Seed Sales and Marketing

Total employment.....	2 371
Total Annual Salaries and Benefits	\$ 220 029 000
Total Annual Operating Costs	
Goods and Services Purchased	\$ 287 447 000
Total Annual Investment in Capital Goods	\$ 87 405 000
Annual International Sales	\$ 381 065 000
Total Dollar Contribution 2007	\$ 975 946 000

Some Interesting Facts From the Study

A. Research and Plant Breeding

- Traditional Plant Breeding employs 3 times as many scientists as does the biotech industry
- There are almost 2 full time technicians for every scientist
- Consumes \$160,000 per scientist in goods and services
- Invests over \$51,000 per scientist (capital investment)
- Generates \$163,000 per scientist in international sales

B. Seed Production

- There is room to grow the pedigreed seed sector – on average, seed producers have 1.2 acres of commodity production for every acre of pedigreed seed production
- 30% of the pedigreed seed acres in 2007 were produced under contract to seed companies
- Consumes \$180,000 in goods and services for every producer
- Capital investment is over \$103,000 per producer
- Generates over \$56,000 per producer in international sales

C. *Processing and Production Support*

- Over 2.8 million tonnes of seed were processed in 2007
- The seed processing segment consumed \$146,000 per employee in 2007
- Capital investment was almost \$44,000 per employee
- The segment generated \$1,400 per employee from the international market

D. *Seed Marketing and Distribution*

- Contributed almost 976 million to the Canadian economy in 2007
- Consumed goods and services at over \$121,000 per employee
- Invested almost \$37,000 per employee in capital in 2007
- Generated well over \$160,000 per employee in international sales